History of Economic Thought II

BHU Department of Economics

Chapter One: The Neoclassical School
1.1 Introduction

- Between the publication of **John Stuart Mill's** and the appearance of the celebrated treatise, written by **Alfred Marshall**, an interval of some forty years had elapsed.
- Mills greatest work **'Principles of Political Economy'** (first published in **1848**) was the leading textbook in the field, at least until the publication of Alfred Marshall's **'Principles of Economics' in 1890.**
- The latter was a lucid restatement of the whole body of economic thought.

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- During these four decades much had happened in the politico-economic set up of Western Europe and, particularly, in Britain, both from the doctrinal standpoint and in actual experience.
- **The emergence of marginalism and its spread had a striking impact upon economic thinking marking a radical departure from the classical labour theory.**
- **The marginalist doctrine not only challenged the classical concept of value but was also used**, by some adherents of the school, to undermine the validity of the Marxian labour theory of values.

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- The microeconomic thought of the **Marginalists was then transformed into neo-classical economics**.

- **Neo** means **“new’.** Thus, neoclassicism implies a new form of classicism.

- Like the marginalists, they emphasized **decision making and price determination at the margin.**

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However, They are different from the marginalists at least in Three areas:

1. **Neoclassical thoughts stressed both demand and supply in determining the market price of goods, services and resource. While the marginalists stress only demand.**
2. **Many of the neo- classical economists took a far greater interest in the role of money in the economy than Marginalist.**
3. **Neo-classical economist extended marginal analysis to market structures in addition to pure competition, to pure monopoly and duopoly.**

Alfred_Marshal (1842-1924)

- Alfred Marshall, son of a bank cashier, was born in Clapham, England.
- His father, a man of stern religious principles, destined him to go to Oxford to prepare for the Anglican ministry, which would have required him to study classical languages and literature
- Instead, young Marshall preferred to go to Cambridge to study mathematics
- He was one of the top honor students in his class and became a teacher of mathematics at Cambridge.

Alfred_Marshal (1842-1924)

- Thus, he was much better trained in mathematics than either Walras or Jevons, but unlike them he did think that mathematics was the key to progress in economics.
- In fact, he came to economics from a conviction that knowledge of it was essential to be able to cope with the social problems of the poor, which worried him all his life,
- And the kind of economics he thought useful was very detailed studies of historical and contemporary factual and institutional affairs.

Alfred_Marshal (1842-1924)

- He attended Cambridge and devoted himself to ***mathematics, physics and economics.***
- ***He popularized the modern diagrammatic approach to economics that helped to explain certain*** fundamental ***principles.***

- ***He was the great synthesizer***, seeking to combine the best of classical economics with Marginalist thinking and then producing **"neo-classical" economics.**

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- In the Principles, Marshall sought to reconcile the classical and modern theories of value by making use of the new thought material supplied by the subjective school building a deeper foundation, and at the same time to maintain and improve the old structure.

- Thus, Marshall is not to be thought of as to demolish the economics of Smith, Ricardo and Mill.
- On the contrary he sought to supplement it.

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- The doctrine of maximum satisfaction, which Marshall put forward in his principle of economics had its basis in Jeremy Bentham’s principles of maximizing utility, used by Jevons, and Marshall adopted it as his criterion of social good.
- He regarded the highest social good as the arrangement, which maximized individual satisfaction.
- Thus, though his outlook was classical, Marshall was essentially a latter-day utilitarian – a liberal social reformer.

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- He saw evil and strongly desired its abolition and believed that economics should not be solely descriptive but should aim at being an instrument for the services of mankind.
- Though Marshall admitted Malthus's and other classicist's concept that land was subject to diminishing returns, he believed that man's skill was capable to make land yield increasing returns to balance the niggardliness of nature.

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- He criticized the classicists' subsistence wage theory and introduced, in lieu of it, **a wage-concept based on standard of comfort**, which he believed both increased efficiency of production and was made possible by increased efficiency.

Contribution to Economic Theory

- Though Marshall's principles is a general restatement of the economic doctrines of up to his time, he has made several important contributions to economic theory.

1. <u>Utility and Demand</u>

- Marshall was early in marginal utility field, although he was not the first.
- He based his theory of consumer's demand on marginal utility function in which the marginal utility of good x depends only on the amount of x consumed and not also on

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- This is called **an additive utility function** since the total utility of a consumer is the sum of the utilities derived from each separate good or service.
- And, in terms of later development, it was a cardinal utility function, in which utility is measurable.
- Naturally, the marginal utility was held to be diminishing.

Writing the total utility function as $U_x = f(x)$, dU/dx decreases as more of x is consumed.

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- Another important aspect of Marshall's theory of utility is his proposition that the marginal utility of money [actually, of income rather than the stock of money held as an asset] is constant.
- Denote the utility of money as μ and money as m: *then the marginal utility of money is* $d\mu/dm =$
- When the consumer is buying the equilibrium quantity of X, the marginal utility per dollar spent on a unit of X is equal to the marginal utility of money.

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- If the former is greater than the latter he should buy more X, and if less, he is buying less X.
- The equilibrium condition is thus

$$(dU/dx)/p_x = d\mu/dm.$$

- Now suppose the price of X falls, and hold the marginal utility of money constant.
- Obviously to keep the equilibrium condition the marginal utility of x has to fall, which means the consumer must buy more X!

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- We have deducted that the demand curve has a negative slope.
- The marginal utility basis for demand suggests a consumer buying successive amounts until marginal utility and price intersect (which is the basis for Marshall's concept of consumer surplus - the difference between what we do pay and what we would be prepared to pay).
- Marshall distinguishes between movement along the same demand curve and an entirely different curves (a rise or fall in demand).

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- Marshall demonstrates that in order to maximize utility from a given income, consumers adjust their expenditure until no gain in satisfaction can be achieved by any other allocation of expenditure (i.e., the last penny spent on any of the goods involved yields the same amount of satisfaction).
- Turning to supply, Marshall examines the terms on which sellers are willing to put goods and services into the market (i.e., the cost and sacrifices involved).

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- These costs and sacrifices tend to rise as the quantity offered increases; here, the supply curve moves in the opposite direction from the demand curve, rising form left to right.
- Firms normally operate under conditions in which marginal costs (the addition to total costs arising from the production of additional units of output) are rising.
- This is because increased output involves them in purchasing further inputs of the factors of production at increased cost.

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- Marshall then proceeds to aggregate the supply curves of individual firms to arrive at consolidated supply curves of firms producing identical outputs.
- Having set forth his analysis of demand and supply, Marshall brings them together to show how the market (or equilibrium) price is determined.
- This is at the point of intersection of the two curves.

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- A price above the equilibrium would mean that the seller would be prepared to offer more than buyers would be prepared to take, and competition among sellers would force the price down to the level at which the market would be cleared.
- A price below equilibrium would lead to competition among buyers which would push price upwards again.

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- To Marshall, these two curves are like a pair of scissors. In a famous phrase, he states:

'*We might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production.‘*

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- In the long run, equilibrium will have taken account of both demand and supply conditions.
- We should pause here to examine more clearly what Marshall means by different time scales in economics:

Marshall's identified three time periods in relation to demand and supply:

1. **Market period**
2. **Short run**
3. **Long run**

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- **The first is a 'market period',** i.e., a period too short for the producer to make any adjustment in his output in response to changes in prices.

- **The second is the 'short run',** in which output can be adjusted within the context of a given plant. The labour force may be induced to work longer hours, or more workers may be engaged, and additional raw material may be purchased by the measures described above. They would, however, probably involve a situation of rising marginal costs.

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- In Marshall's third time period, the 'long run', there is an opportunity to expand the plant or for new firms to enter the industry.
- These various consequences, in face of increased demand, operate in the opposite direction if demand is falling.
- The length of the adjustments will vary in the real world from industry to industry. It can be argued that Marshall pays too much attention to the concept of 'industry' (a collection of independent firms all contributing to the aggregate supply of one kind of product) and too little to the individual firm's behaviour.

Consumer’s surplus

- Marshal’s idea of consumer’s surplus

Price per pound	Quantity purchased (pounds)
20	1
14	2
10	3
6	4
4	5
3	6
2	7

The person buys one pound of tea annually if the price were 20 shillings

Consumer's surplus

- Suppose the market price is actually 2 shillings. The consumer would spend 14 shillings.
- This person's total gain in utility from the purchase of the seven pounds of tea is thus 59 shillings (20+14+10+6+4+3+2).
- Because the 1st pound provides 20 shilling's worth of utility, the 2nd 14 etc. Since his expenditure is only 14 shillings, he receives a consumer surplus of 45 shillings (59-14).

Consumer's surplus

- Put differently, the consumers surplus on the 1st pound of tea is 18 shillings (20-2), on the 2nd (14-2) etc for a cumulative total of 45 shillings.
- ***According to him, the consumer's surplus increases significantly in a productive social environment in which the price of goods falls as they are produced more efficiently.***
- However, although he considered marginal utility of money as constant it is not. Moreover, measuring consumer demand in the case of market demand is problematic.

Consumer's surplus

- But, his consumer surplus theory has proved to be a valuable tool for analyzing several economic phenomenal like the dead weight or efficiency losses from taxes, monopoly and tariffs.

Elasticity of Demand

- He handled elasticity of demand properly unlike the previous economists. He analyzed verbally, diagrammatically and mathematically.
- He also discussed determinants of demand elasticity

  - Proportion of income spend on the commodity

Supply

- According to him, it is governed by cost of production. It is a whole series of quantities that would be forthcoming at a whole series of prices. He divided the time periods in to three

(1) The immediate present (2) The short run and (3) The long run

1. Immediate present

- Which may be a s short as one day. The quantity supplied can not be increased in response to a suddenly increased demand. Nor can the quantity supplied be decreased immediately in response to a decline of demand.

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- If a good is perishable, the market supply curve is perfectly inelastic-a vertical straight line. The firm would rather sell its fresh fish for a small amount rather than let it spoil
- If the good is not perishable, the sellers have reservation prices below which they will not sell. However, some sellers sell at prices below cost of production may be because they have pressing bills to pay.
- Therefore, the market supply curve slopes up ward and to the right until it encompasses the quantity on the market.

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2. Short run

To analyze this period, he divided cost in to two:

- **Supplementary costs** : fixed costs (salaries and plant depreciation)
- **Prime costs**: variable costs (costs for labor and raw materials). The short run supply curve sloped up ward and to the right- the higher the product price, the larger is the quantity supplied,(modern economics view the short run supply curve as MC curve).

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3. Long run

- In the long run, all costs are variable, and they must all be covered if the firm is to continue in business.
- If the price rises (TR>TC) capital will enter the industry (new firms), and market supply will increase (out ward shift of supply curve). If the prices fall, the market supply will decline (inward shift of the supply curve).

Distribution of Income

- In a competitive economy, income is determined by the pricing of factors of Production.
- According to him, business people must compare the relative efficiency of every agent of production they employ and consider the possibilities of substituting one agent for another.

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Wages

- Wages are the reward for effort
- According to him, wages are not determined by the marginal productivity of labor alone.
- Marginal productivity is the basis for the demand for labor that is a derived demand depending on the demand by consumer for the final products.
- Wages like the return to any factor of production depend on both demand and supply.

  -If L^{ss} ses MPL   equilibrium wage rate

  -If L^{ss} ses MPL   equilibrium wage rate

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- Marginal productivity by itself does not determine wages, because varying the number of workers will produce much possible marginal productivities. But, wages measure and are equal to marginal productivity with a given supply of labor.
- Marshal apart from correctly identifying the demand for labor as a derived demand; he also discussed the determinants of the wage elasticity of labor demand.

Marshal’s four laws of derived demand are summarized by Arthur pigou as follows:

1. The greater the substitutability of other factors for labour, the greater will be the elasticity of demand for labour. (Other things remaining constant). An □w□a higher decline in employment.
2. The greater the price elasticity of product demand, the greater will be the elasticity of labour demand. Suppose the demand for a product is elastic and w□ses □□ cost of production □□ price of the product □ □ Quantity demand □ decline an equal number of hired workers.

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3. The larger the proportion of total production costs accounted for by labor, the greater will be the elasticity of labour demand.

(If Labor cost is 100% of TC, a 20% □in w□ a20% □in TC)

(If Labor cost is 10% of TC, a 20% of □in w□ a2% □in TC)

4. The greater the elasticity of the supply of other inputs, the greater the elasticity of demand for labour.

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Suppose W substitution of capital for labor. Does an in the demand for capital leads to an the price for capital and decline the substitution processes? The answer is:

Yes –if the supply of capital is highly inelastic.

No –if the supply of capital is highly elastic. (because if p ses producers supply a lot of capital price of capital. Thus, substitution can not be affected.)

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Interest

- interest is the reward accruing to owners of capital for 'waiting' (i.e., the sacrifice involved in forgoing present consumption in favour of prospective future gains).
- Like other commodities, the higher interest rate, the less capital demanded.
- Although the main motive for saving is the willingness of people to postpone consumption, family affection, force of habit, miserliness, magnitude of income and prudence affects saving.

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Quasi- Rent

- Rent is the reward for the use of the factor land.
- But Marshall introduced the term quasi-rent to apply to fixed investments. Since the capital goods in existence are in fixed supply in the short run, the return to them resembles the rent of land.
- In the short run, land and manufactured capital goods are similar because the supplies of both are fixed. Thus, the return to old capital investments (quasi-rent) is similar to rent.
- Interest is the earnings on new investments while quasi-rent is the earnings on previous capital.

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In both cases the return is a surplus in the sense that the factor of production would be in existence whether the rent was paid or not.

But in the long run for capital goods, the return in one industry must equal that generally attainable in the economy or the investment will not be replaced.

The difference in the long-run behaviour of capital goods as compared to land is the reason why the return to land is called rent but the return to capital is *quasi-rent*

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Marshall argues that in addition to the yield that businessmen may get as interest on their equity capital, and the wages they receive as a reward for routine management in established business, ***they have a claim for creating and developing effective organizations.***

This is a category of special reward for active and successful businessmen. This view reflects

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- ***He considered the organizer or the entrepreneur as the central factor in the productive process. In fact, many contemporary economists, following his example, regard the role of the entrepreneur as the fourth factor of production.***

Internal and External Economies

- **Internal economies**: - the efficiencies or cost savings introduced by the growth in size of the individual firm (specialization and mass production)
- **External economies:** It depends on the general development of the industry (It comes outside the firm)

Increasing and decreasing returns to scale

- According to him, in industry because of an expansion of labour and capital and an improvement in organization and efficiency, there is an ***increasing return to scale***.
- However, **agriculture**, since it relies on ***nature there is decreasing returns to scale.***
- An industry in CRS, an in DD for its product does not affect its price in the long run.
- An industry in IRS, an in DD for its product fall in its price
- An industry in DRS, an in DD for its product in its price

Role of government

- **Marshall regarded the role of the government in economic affairs as being very important.**
- **In fact, he urged governments to subsidies certain mass production industries that operate at decreasing cost as output is raised.**
- **In this way, he argued, society's total utility or satisfaction would be increased.**

Irving Fischer (1867-1947)

- **Irving Fisher** spent his entire academic career, both as a student and professor at **Yale University.**
- Fisher was a man of diverse interests, and has been considered the greatest economist of America.
- Apart from economics writings, he published many mathematical text books.
- **His PhD dissertation was mathematical investigations in the theory of value and prices**
- It was a study of general equilibrium involving utility theory –independent cardinal utilities, and ordinal indifference curve analysis.

Irving Fischer (1867-1947)

- He used mathematics extensively in economics and independently he had presented a rudimentary exposition of general equilibrium.
- He has also contributed to the study of utility.
- In his day he was better known for his work on **money and index numbers.**

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- His 1911 book "***the purchasing power of money***" *contains his version of the quantity theory of money:*

$$MV=PQ$$

where M is money, V is velocity (the number of times money turns over in a year), P is the average price, and Q the total quantity of goods purchased.

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- Much of the book is made up of a study of the short-run effects of changing the supply of money.
- The long run effect is simple: Double M and in the long-run P is doubled.
- **But in Fisher's hands the quantity theory is not mechanical but involves an analysis of the whole macroeconomic process.**

Fisher’s theory of interest

- **Fisher’s central contribution was his theory of interest.**
- Originally published in 1907 as “***the rate of interest***”, *the book was revised in 1930 as “****the theory of interest****” with the subtitle as* ***determined by the impatience to spent income and opportunity to invest it.***
- *This theory is a general equilibrium supply and demand model.*

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- According to him the impatience rate and the investment opportunity rate are the two factors that interact to establish the interest rate.
- ***The impatience rate***: the extent of the community's willingness to obtain present consumption by giving up future consumption.
- ***The investment opportunity rate***: It involves subjective valuations. It is determined by real factors such as the quantity and quality of resources and the state of technology.

Fisher's monetary policy

- By strictly controlling the quantity of currency in circulation, the quantity theory of money offers a way to stabilize the overall price level and thereby stabilize the economy.

- Like most monetarists, he believed that price fluctuations cause rather than result from business fluctuations. Thus, stabilizing prices by controlling the quantity of money would eliminate the business cycle.

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- According to him the rate of interest depends upon the time preference of individuals for the present over future goods.

- ***In any case Fisher deserves credit for establishing relationship between the value of money and the rate of interest.***

Piero Sraffa (1898-1983)

- Marshall's concern with decreasing cost, shared by so many students of welfare economics, set in motion still another train of thought, which in time brought to fruition ***theories of imperfect or monopolistic competition.***

- The developments of these theories may be traced to Cambridge in the 1920s, where Piero Sraffa, and Joan Robinson were students.

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- **Piero Sraffa**, the son of a professor of commercial law was born in Turin, Italy.
- The young Sraffa was educated at the University of Turin, where his honors' thesis ***Monetary inflation in Italy during and after the war*** gained approval of his tutor.
- From 1921-22 Sraffa studied at LS.E, but returned to Italy to hold posts at Perugia and Cagliari.
- He was appointed professor of Political economy at this latter institution in 1926.

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- His literary reputation rests on a number of important articles and two longer works: ***The Works and Correspondence of David Ricardo (1951-1973)*** *and* ***Production of Commodities by Commodities Prelude to a Critique of Economic Theory (1960).***
- In 1926, Sraffa published a seminal article entitled ***The law of Returns Under Competitive Conditions*** was a plea or an analysis of the firm in terms of monopoly rather than competition.

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- With decreasing costs widespread, the obstacle to an increase in the sales of a firm was not the threat of rising costs but the unwillingness of the market to absorb larger quantities without either price reduction or increased marketing expenses.
- Straffa considered this situation common enough to require adequate analytical model, and he adopted Marshall’s suggestion of particular demand curves of special markets.

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- Such particular demand curve would slope downward like the demand curve facing a monopolist.
- It could be so drawn because buyers would not be indifferent in their choice between the products of particular firms but would, within limits, prefer one over the others.
- The causes of such preference were **manifold** ***a****nd* *included* ***trademarks, names, and such design on the product distinguishing it from the products of other firms. special features of modelling*** *or*

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- A buyer’s demanded price for a product so distinguished reflected not only the valuation that he placed on this product but also the prices at which similar products could be purchased from other firms.
- ***The Production of Commodities by Commodities: Prelude to a Critique of Economic Theory*** is concerned with the properties of an economic system, which do not depend on the scale of production or the proportion of factors.

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- Commodities are produced by labour and by other commodities.
- Demand plays no role in the determination of relative prices; prices depend only on **technology and on the distribution of incomes between wages and profits.**
- Because there is one more unknown that there are equations in Sraffa's model, it is possible to take either wages or profits as given, and then to determine the relative prices and the remaining distributive share.

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- **This differs from the neo-classical general equilibrium formulation, in which all relative commodity and factor prices are determined at the same time.**

- **Sraffa’s theory appeals to people who believe that power determines people’s incomes, rather than economic variables such as productivity and derived demand.**

Joan Robinson (1900-1983)

- The work of Joan Violet Robinson, who was connected with the University of Cambridge as a student and a teacher, stemmed from that of Sraffa and was linked with the economists’concern about decreasing costs.
- **Mrs. Robinson**, without doubt the most prominent woman economist, burst on the scene as a mainstream economist with her impressive ***Economics of imperfect Competition***, *published in* ***1933***

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- In this work she exhibited great skill as a microeconomic theorist in using marginal analysis to clarify and extend Marshall's hints concerning markets situated somewhere between pure competition and pure monopoly.
- Thus, for several years, before the publication of Keynes' ***General Theory*** there was considerable interest in a Chamberlain-Robinson analysis of imperfectly competitive markets.
- As an important member of small group of economists from Cambridge and Oxford who helped Keynes develop the ideas that became ***the General Theory***, she gained further

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- In 1937 she published ***Introduction to the theory of Employment ,*** an outstanding introduction to Keynes ideas.
- However, Robinson's intellectual and political life manifested a movement away from orthodoxy.
- Her an essay on Marxian Economics remains an excellent short analysis of Marx.
- In the 1950s she offered a new analysis of capital theory and rejected much mainstream neoclassical capital and marginal productivity theory

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- Moving further from orthodoxy, she authored an introductory economics text intended to convey her ideas to a broader audience, but it was not commercially successful.
- Indeed her drift from neoclassical and Keynesian theory had brought her into the muddy waters of heterodoxy and possibly costed her due recognition in terms of the Nobel Prize.

Edward H. Chamberlin

- E. H. Chamberlin was born in Washington USA.
- He taught economics at Harvard University from 1937 to 1967,
- And he made significant contributions to microeconomics, particularly on **competition theory** and **consumer choice**, and **their connection to prices.**
- One of the most influential economists of his time, he coined the word, ***product differentiation, to describe how a supplier may be able to charge a greater amount for a product than perfect competition would allow.***

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- His works include, Theory of Monopolistic Competition (1933) and Toward a More General Theory of Value (1957).
- Although Chamberlin insists that Theory of Monopolistic Competition is a blending or fusion of the hitherto separate theories of monopoly and competition, whereas Mrs. Robinsan left the dichotomy as sharp as ever.
- Almost all students of the matter have agreed with each other that in describing the structure and mechanism of equilibrium in firms and groups of firms when oligopoly and selling

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- Thus, although both works are similar; his work was more far reaching, because it attempted a thorough reconstruction of the theory of value.
- Chamberlin’s two key concepts for blending were product differentiation and the number of sellers.

- Each firm has some unique features, which make its product different from those other firms –location, selling costs, the personality of the manager, etc. thus each firm has some monopoly power.

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- And the number of firms competing against each other obviously makes a difference in the price and output of the firms.
- Chamberlin’s career was devoted to an attempt to formulate theory out of these concepts.
- After many attempts, he decided that it was not possible to cover all price theory, including competition, in terms

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- Thus, in his final attempt, **he emphasised oligopoly**, claiming that oligopolistic elements are very general in the economic system, that economic study must increasingly be concerned with them, and that the basis for general theory to replace that of pure competition is one in which oligopoly emerges with great force.

Johann Gustav Knut Wicksell (1851-1926)

- Knut Wicksell, the great Swedish economist, not only became recognised as the founder of a ‘school’of economic theory, but he has also exercised such great influence on the other economists that one may say, without him economics would be different.
- Wicksell studied philosophy and mathematics, and obtained his degree in 1885.
- Thereafter, he took up economics, studying in France, Germany, Austria and England.

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- Returning to Sweden, he was made assistant professor at Lund in 1900, and there he occupied the chair of economics from 1904 to 1916.
- He wrote many articles for Swedish publications and some German and English journals.
- His major works, however, were written in the German language between 1893 and 1906.
- **Wicksell's thought was greatly influenced by the long decline in prices and discount rates during the period 1870-1895, and the**

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- **Thus he dwelt upon price movements, secular and cyclical, and tended to emphasize the part played by credit.**

- **He is a pioneer in coordinating theories of price and of interest with a theory of value of money.**

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- **Wicksell deals with economic life in terms of marginal utility, and he makes large use of mathematical equations upon which Walras depended.**
- He sought to synthesise the marginal productivity analysis of the Austrian school and the general price equilibrium theory of the Lausanne school- the theory that all prices are so mutually interdependent that a mathematical process of simultaneous equations can solve the price problems.

1. Role of Government:

- Wicksell favoured government intervention in a number of instances, suggested marginal cost rather than full cost pricing for public utilities and common carriers, and developed thoughts from which support for the selective nationalization of certain industries could be drawn.
- He introduced the principle of marginal utility into his analysis of public finance and supplemented the conventional theory of shifting and incidence of taxation with many new insights relating to the effects of taxes on the distribution of income, to questions of social

2. Capital and Interest

- The main part of his thought, as judged by its influence, is the theory of capital and interest.
- From this springs, Wicksell's famous treatment of money rates as related to the 'natural' rate of interest, and bearing of this relation on the general price level.
- **Capital** is defined as a *coherent mass of stored-up labour and saved-up land* and the importance of time element is duly recognized.

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- In fact, Wicksell considers the mass of capital as stratified through time, and this leads him at once into a sort of ***period of analysis***
- ***Along with labour and land of one year, there function the saved-up resources [capital goods] of the preceding year. These capital goods, he assumes to be used up in the production of the current year.***
- ***Therefore, he assumes, that in order to obtain the advantages of capital use, a corresponding part of the current year's resources must be saved up for the next year's capital. And so on.***

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- Interest, in its pure form, is the marginal productivity of waiting.
- Time is the essence.
- More precisely, Wicksell defines interest as the difference between the marginal productivity of saved-up labour and land; and the marginal productivity of currently-used labour and land.

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- This difference is not a mere function of time or waiting, however, for he says that current labour and land are relatively abundant, while saved-up labour and land are not adequate in the same degree for the many purposes in which they have an advantage.

3. Interest and Prices

- The central point of this theory is the doctrine that there is a real or rate of interest, and a bank or loan rate; and that the relation between these two rates is of great importance.
- The ‘natural 'rate is the one that equalizes saving and investment.
- It tends to equal the expected yield to be expected from new investment.

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- At any time there is a normal or natural real rate.
- This is the rate at which the demand for loan capital and the supply of savings are equal, and also the rate, which maintains equilibrium in the goods and services markets (wages and prices will not be changing).
- It is relatively stable. The natural rate changes with changing expectations, inventions, and so on.

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- The loan-rate on money loans and credit is merely the price of money determined according to the Walras formula in combination with other scarce goods in a single system of simultaneous equations.
- It tends to equal the ‘natural’rate, but may be above or below it.
- Suppose that we begin with the case where the loan rate equals the natural real rate, and then suppose that banks expands credit.

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- The loan rate falls below the natural rate, with two results.
- Savings are discouraged, consumption is expanded, and the pressure of demand makes prices rise.
- At the same time profits rise so that investment spending is encouraged and once again prices and wages rise. This continues in a cumulative fashion until the increased incomes absorb all the currency for exchange purposes, leaving no cash reserves against which banks can expand credit. The loan rate will then rise back to the natural rate, reflecting the reduced supply of credit.

4. Savings and Investment

- Under the Walrasian timeless system, Wicksell thought it strange that when prices fall, the fall does not merely release purchasing power and thus bring a counteracting increase in effective demand.
- He assumes that the spending of one individual is the income of another, so that the aggregate purchasing power remains the same. In this connection, no allowance is made for time lags.

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- With this approach, he assumed that ‘normal’ means a condition in which income equals spending, and in which all income not spent for consumption is spent for capital (invested). Such a condition, he believed would mean a **constant price level** which would read **normal.**

5. Monetary Theory

- The above listed contributions were distinguished enough to earn Wicksell recognition as a thinker of substance and originality.
- **B**ut the contribution for which he is best remembered is the development of a monetary theory which went beyond the conventional quantity theory and with which business cycle and income theory could eventually be integrated.

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- Wicksell took as his point of departure Tooke's income theory of prices, enunciated in 1844, according to which it is not the quantity of money but the national income designed for **expenditure that determines the price level.**
- Following Tooke in employing such macroeconomic concepts as the general demand and supply of goods, Wicksell related changes in the price level to the general monetary demand for goods exceeding, or falling short of, their supply and set the task of

Continued….

- Wicksell's break with the Classical School occurs in his treatment of money. Whereas his predecessors had seen money mainly as a medium of exchange, he gives money a more crucial role.

- He comes close to the later Keynesian idea of the ***income approach to the monetary theory, with its relevance to the concept of aggregate demand and the link between consumption and saving-investment elements.***

Continued….

- Wicksell saw that the market rate of interest did not always coincide with the real rate of interest, or as Marshall called it, the ’normal rate’(i.e., that which correspond with he marginal productivity of capital) and to saving-investment equilibrium.

- One of Wicksell’s concerns in linking monetary theory with value theory was to achieve a rate of interest, which kept prices stable.

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- He believed that a stable price-level was the prime objective of monetary policy. In this aim, he seems to be activated more by social and moral values than by pure economic considerations, but this does not preclude him from presenting an analysis of considerable complexity and ingenuity.
- He saw that the movement of interest rates might, instead of achieving aggregate equilibrium, move in the opposite direction and that there were nothing necessarily self-correcting in these movements.

Critical Appraisal

- A criticism levelled against Wicksell is his attempt at synthesising the timeless economics of Walras with the time bound economics of Bohm-Bawerk.
- In general, he shows the weakness of price economics. His margins are price–determined. He virtually assumes the existence of capital, and falls back on opportunity cost –the opportunity of the lender to use his own funds.
- He treats interest as a price, which affects other prices, and so may be treated as a

Continued….

- But Knut Wicksell was a first class economist. He was eclectic, but only in the best sense. He was a true scientist, and showed his power by creating a general system of economic theory that is consistent enough to have resulted in a vigorous school of thought.
- Not the least result of Wicksell's thought was its influence on J.M. Keyenes, some of whose basic ideas appear to have come directly from the Swedish professor.